



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/744,393	03/05/2001	Samuel W. D. Steel	36-1553	5720

23117 7590 05/27/2003

NIXON & VANDERHYE, PC  
1100 N GLEBE ROAD  
8TH FLOOR  
ARLINGTON, VA 22201-4714

EXAMINER

LE, MIRANDA

ART UNIT	PAPER NUMBER
----------	--------------

2177

DATE MAILED: 05/27/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.

7

**Office Action Summary**

Application No.

09/744,393

Applicant(s)

STEEL ET AL.

Examiner

Miranda Le

Art Unit

2177

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6. 6) ☐ Other:

## DETAILED ACTION

### *Specification*

1. The disclosure is objected to because of the following informalities: This application does not contain:

- (a) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
  - (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
  - (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."
- (b) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.
- (c) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.
- (d) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not

Art Unit: 2177

necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.

- (f) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet (37 CFR 1.52(b)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).
- (g) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).
- (h) Sequence Listing. See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

Appropriate correction is required.

### ***Drawings***

2. The drawings are objected to because they fail to show necessary textual labels of features or symbols in Fig. 1, 4 as described in the specification. For example, placing a label, "database store ", with reference 1 would give the viewer necessary detail to fully understand this element at a glance. A ***descriptive*** textual label for ***numbered elements*** 2, 3, 4, 5, 6, 100, 101, 102, 103, 104, 105, 106, 107, 108 in these figures would be needed to fully and better understand

Art Unit: 2177

these figures without substantial analysis of the detailed specification. Any structural detail that is of sufficient importance to be described should be shown in the drawing. Optionally, applicant may wish to include a table next to the present figure to fulfill this requirement. See 37 CFR 1.83. 37 CFR 1.84(n)(o) is recited below:

“(n) Symbols. Graphical drawing symbols may be used for conventional elements when appropriate. The elements for which such symbols and labeled representations are used must be adequately identified in the specification. Known devices should be illustrated by symbols which have a universally recognized conventional meaning and are generally accepted in the art. Other symbols which are not universally recognized may be used, subject to approval by the Office, if they are not likely to be confused with existing conventional symbols, and if they are readily identifiable.

(o) Legends. Suitable descriptive legends may be used, or may be required by the Examiner, where necessary for understanding of the drawing, subject to approval by the Office. They should contain as few words as possible”.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless:

(e) the invention was described in

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 4-6, 9-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Boguraev et al. (US Patent No. 5,799,268).

Boguraev anticipated independent claims 1, 6, by the following:

Art Unit: 2177

5. As per claim 1, Boguraev teaches “(i) analysing each field in accordance with a predetermined criterion so as to identify an entry within said field” at col. 4, lines 58-60;

(ii) generating at least one index entry representing a concordance between an identified entry and the record corresponding to the identified entry,

characterised in that: (col. 4, line 66 to col. 5, line 46)

for each of a plurality of predetermined formats, the analysing step (i) further includes: searching said field to identify a sequence of characters having a format corresponding to the predetermined format, said identified sequence of characters being deemed to constitute an identified entry” at col. 5, lines 29-47.

6. As per claim 6, Boguraev teaches “a processor for analysing each field in accordance with a predetermined criterion so as to identify an entry within said field” at col. 4, lines 58-60;

“an index generator for generating a plurality of index entries representing a concordance between the entries identified by the processor and a record” at col. 4, line 66 to col. 5, line 46;

“a data store for storing the index entries, characterized in that the processor further includes means for searching said field to identify a sequence of characters having a format corresponding to each of a plurality of predetermined formats, said identified sequence of characters being deemed to constitute an identified entry” at col. 7, lines 27-67.

7. As per claim 4, Boguraev teaches “the records within the semi-structured database are further arranged in groups of records, each group of records being located in a heading field and being identified by at least one heading entry, wherein the method further comprises the steps of,

for each heading field: vi) identifying heading entries by comparing each heading field with each of a plurality of selection criteria, each selection criterion defining one or more predetermined characteristics of a respective heading entry” at col. 5, lines 47-55;

vii) generating a plurality of index entries representing a concordance between the heading entries determined in step (vi) and the group of records in the heading field” at col. 8, lines 17-57.

8. As per claim 5, Boguraev teaches “arranging the index entries into groups of index entries in accordance with predetermined criteria” at col. 5, lines 41-46

9. As per claim 9, Boguraev teaches “the records within the semi-structured database are further arranged in groups of records, each group of records being located in a heading field and being identified by at least one heading entry, wherein the processor is arranged to identify heading entries by comparing each heading field with each of a number of selection criteria, each selection criterion defining one or more predetermined characteristics of a respective heading entry and wherein the index generator generates a plurality of index entries representing a concordance between the heading entries determined by the processor and the group of records in the heading field, the index entries being stored in the store” at col. 65, lines 16-39, col. 5, lines 47-55, col. 8, lines 17-57.

10. As per claim 10, Boguraev teaches “input means for receiving the request’ at col. 7, lines 51-64 ;

“a parser for parsing the request to determine the components of the request” col. 4, lines 51-67, col. 5, line 67 to col. 6, line 16;

“a slot filler for determining whether the request includes any verb components forming a verb or verb group” at col. 10, lines 20-44;

and, if the request includes any verb components, the slot filler determines the position of the verb or verb group within the request” at col. 11, line 36 to col. 12, line 27, and determines any subject components representing the subject of the request and any object components representing the object of the request using the position of the verb or verb group” at col. 5, lines 1-46;

if the request includes no verb components, the slot filler determines any components to be object components, wherein each slot corresponds to one of the group of index entries and wherein the slot filler is arranged to allocate at least one component to a respective slot of a slot-and-filler request” at col. 11, line 36 to col. 12, line 9, col. 5, line 45 to col. 6, line 16;

“a query constructor for accessing a database” at col. 5, lines 47-54, wherein the query constructor is arranged to compare each of the components allocated to a slot in the slot-and-filler request to one or more index entries in a respective group of index entries, to select the index entries for records which have entries including any of the components and, to use the index entries to determine the location of each respective record in the semi-structured database” at col. 65, lines 14-39.



***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claims 2-3, 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boguraev et al. (US Patent No. 5,390,335), in view of Fries et al. (US Patent No. 6,029,232).

13. As per claims 2, 7 Boguraev does not teach “for at least one field, defining any characters not identified as an entry in step (i) as a free text entry”. However, Fries teaches this limitation at col. 12, line 65 to col. 13, line 11, col. 19, lines 46-50.

Thus, it would have been obvious to one ordinarily skilled in the art at the time of the invention to modify the teachings of Boguraev with the teachings of Fries to include “for at least one field, defining any characters not identified as an entry in step (i) as a free text entry” in order to allow a user to have more efficient search tools used in computer searching.

14. As per claim 3, Boguraev teaches “iv) identifying at least one free text word in a field by comparing the free text entry with at least one selection criterion defining one or more predetermined characteristics of a free text word” at col. 3, lines 14-38, col. 5, lines 32-44.

Fries teaches this limitation at col. 13, lines 12-22, col. 13, lines 29-41.

Boguraev teaches v) generating a plurality of index entries representing a concordance between the selected free text words determined in step (iv) and the respective records” at col. 5, lines 32-44.

Fries teaches this limitation at col. 7, lines 38-54.

15. As per claim 8, Boguraev teaches “at least one free text word defined by a sequence of alphanumeric characters, wherein the processor identifies at least one selected free text word for a field by comparing the free text entry with at least one selection criterion defining one or more predetermined characteristics of a selected free text word; and, wherein the index generator generates a plurality of index entries representing a concordance between the selected free text words determined by the processor and the respective records” at col. 14, line 14 to col. 15, line 3, col. 5, lines 47-55, col. 8, lines 17-57.

### **Conclusion**

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Miranda Le whose telephone number is (703) 305-3203. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM.

Art Unit: 2177

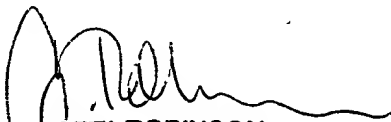
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene, can be reached on (703) 305-9790. The fax number to this Art Unit is (703) 746-7238. The TC 2100's Customer Service number is (703) 306-5631.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.



Miranda Le

May 16, 2003



**GRETA ROBINSON**  
**PRIMARY EXAMINER**

**Attachment for PTO-948 (Rev. 03/01, or earlier)**  
**6/18/01**

**The below text replaces the pre-printed text under the heading, "Information on How to Effect Drawing Changes," on the back of the PTO-948 (Rev. 03/01, or earlier) form.**

**INFORMATION ON HOW TO EFFECT DRAWING CHANGES**

**1. Correction of Informalities -- 37 CFR 1.85**

New corrected drawings must be filed with the changes **incorporated** therein. Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and centered within the top margin. If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings **MUST** be filed within the **THREE MONTH** shortened statutory period set for reply in the Notice of Allowability. Extensions of time may **NOT** be obtained under the provisions of 37 CFR 1.136(a) or (b) for filing the corrected drawings after the mailing of a Notice of Allowability. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

**2. Corrections other than Informalities Noted by Draftsperson on form PTO-948.**

All changes to the drawings, other than informalities noted by the Draftsperson, **MUST** be made in the same manner as above except that, normally, a highlighted (preferably red ink) sketch of the changes to be incorporated into the new drawings **MUST** be approved by the examiner before the application will be allowed. No changes will be permitted to be made, other than correction of informalities, unless the examiner has approved the proposed changes.

**Timing of Corrections**

Applicant is required to submit the drawing corrections within the time period set in the attached Office communication. See 37 CFR 1.85(a).

Failure to take corrective action within the set period will result in **ABANDONMENT** of the application.